

### REMARKS/ARGUMENTS

Reconsideration of this application as amended is respectfully requested.

Applicant affirms election of Group 1, claims 1-4, 12-15, 22 and 23 as discussed with the Examiner during a telephone conversation on March 28, 2003. Claims 5-11, 16-21 and 24-29 are withdrawn from further consideration by the Examiner as being drawn to a non-elected invention.

Claims 1-4, 12-15, 22 and 23 remain pending in this application. Claims 5-11, 16-21 and 24-29 have been canceled due to Examiner's restriction requirement and will be filed in a divisional application.

Claim 22 has been amended in response to Examiner's 35 USC 112 objection.

Claims 1-4, 12-15, 22 and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,329,471 (Swoboda) in view of U.S. Patent No. 5,471,587 (Fernando). Applicant respectfully traverses.

According to the Examiner, Swoboda teaches an integrated circuit comprising at least three cooperating frequency domains having variable operating frequencies but does not teach or disclose a cross-over logic to interface with different frequency domains. The Examiner states that Fernando discloses an integrated circuit having a cross-over logic to allow integral fractional ratio frequency domain over cross-overs between more than one pair of frequency domains. The Examiner concludes that because Swoboda and Fernando both disclose an integrated circuit having plurality of frequency domains and Fernando discloses the limitations missing from Swoboda, the Swoboda system would be improved by allowing to implement multiple flexible clock domain interface and frequency domain cross-overs. Applicant respectfully disagrees.

Applicant argues that nowhere does Swoboda teach or disclose three domains having variable operating frequencies. Rather, in Swoboda each domain 1213, 1215 and 1217 can have its clock individually selected while the other domain selections are locked (unchanged). The selection process is a synchronized transfer of control between JCLK and FCLK in each domain. See col. 16, lines 60-67. Swoboda further states that the support architectures utilize two different clocks to support their operations. The two clocks are the functional clock (FCLK) and the scan clock (JCLK). See col. 16, lines 42-44. Thus, in

Swoboda, one domain can have a clock selected while the other domains have their clocks unchanged. In addition, there is no mention of the three domains operating at variable frequencies. Therefore, Swoboda fails to teach or disclose three domains having variable operating frequencies.

Secondly, Applicant argues that Fernando cannot be combined with Swoboda. A prima facie case of obviousness exists when (1) either the reference themselves or the knowledge generally available to one of ordinary skill in the art contain some suggestion or motivation to modify the reference or to combining the reference teachings; (2) a reasonable expectation of success exist; and (3) the prior art reference or references teach or suggest all the claim limitations. Here, neither the references themselves nor the art generally contain a suggestion or motivation to combine the reference teachings as suggested by the Office Action.

Swoboda discloses a circuit with three domains. Swoboda discloses that the three domains are clocked by different clocks when desired. See col. 13, lines 42-51. However, there is no teaching or suggestion that Swoboda discloses a cross-over logic to allow integral fractional ratio frequency domain cross-overs between more than one pair of frequency domains as recited in claim 1. In addition, Swoboda fails to disclose any domain crossing logic. Thus, Swoboda fails to teach or disclose the claimed present invention.

Fernando does not remove the shortcomings of Swoboda. Fernando discloses a method and apparatus for enabling internal data processing logic including a number of units clocked at a first frequency to operate with an external bus operating at a second frequency. However, there is no teaching or suggestion of the use of three cooperating frequency domains having variable operating frequencies. Nor does Fernando disclose how its cross-over logic would operate in three frequency domains. Thus, Fernando does not teach or disclose the claimed present invention.

In any event, even if Swoboda and Fernando were combined, such a combination would lack one or more features of Claim 1. A combination of Swoboda and Fernando would fail to teach or disclose:

...at least three cooperating frequency domains having variable operating frequencies....

(Claim 1 in part).

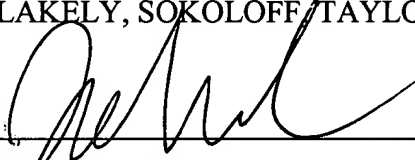
Therefore the combination of Swoboda and Fernando fails to teach or disclose that claimed in Claim 1. Furthermore, for the same reasons noted above with respect to Claim 1, Claims 2-4, 12-15, 22 and 23 are similarly distinguished over the Swoboda and Fernando references, alone or in combination.

In summary, for the reasons noted above, Claims 1-4, 12-15, 22 and 23 are distinguished over the cited art and are in condition for allowance. It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. Favorable action is respectfully solicited. Allowance of the Claims is respectfully requested.

Please charge any additional charges to our Deposit Account No. 02-2666.

Respectfully submitted,

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